

What is claimed is:

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1. Apparatus for treating tachyarrhythmias, comprising:
treatment means for delivering a first therapy to a patient's heart to treat
tachycardia and a second therapy to said patient's heart to treat fibrillation;
first means for sensing electrical signals from said patient's
heart indicative of the depolarization of a chamber or chambers of said
patient's heart;
means for measuring and storing the intervals separating said
electrical signals;
means for detecting the occurrence of a tachyarrhythmia; and
tachycardia/fibrillation discriminator means responsive to said
detecting means for selecting between said first and second therapies.

2. The apparatus of claim 1 wherein:

said discriminator means in turn comprising:

means for sorting said measured intervals into interval ranges;
means for determining the numbers of intervals within each said
interval range;
means for identifying ones of said interval ranges which have the
highest numbers of said stored intervals;
means for determining the total number of said stored intervals falling
within said identified interval ranges;
means for deriving a variable threshold criterion varying as a function of the
length of the intervals separating preceding depolarizations; and
means for triggering said first therapy if said total number meets said
variable threshold criterion.

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3. The apparatus of claim 1 wherein the deriving means comprises means for
deriving said threshold criterion as a value which increases as an inverse function of
the length of the intervals separating preceding depolarizations.

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4. A device according to claim 1 wherein the deriving means comprises means for deriving said threshold criterion as a value which increases as an inverse function of the length a defined percentile interval over a sequence of a predetermined number of intervals separating preceding depolarizations.

5. A device according to claim 1 wherein the deriving means comprises means for deriving said threshold criterion as a value which increases as an inverse function of the length of the 75th percentile interval over a sequence of a predetermined number of intervals separating preceding depolarizations.

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